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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/724,845	11/28/2000	Albert Maria Vodermayr	15258-050300US	6144

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TOWNSEND AND TOWNSEND AND CREW, LLP
TWO EMBARCADERO CENTER
EIGHTH FLOOR
SAN FRANCISCO, CA 94111-3834

EXAMINER

THOMPSON, CAMIE S

ART UNIT	PAPER NUMBER
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1774

DATE MAILED: 03/07/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/724,845

Applicant(s)

VODERMAYER ET AL.

Examiner

Camie S Thompson

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) 6-10 is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on 11/28/2000 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☒ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Election/Restrictions

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. Claims 1-5, drawn to article of manufacture, classified in class 428, subclass 114.
- II. Claims 6-9 drawn to method, classified in class 156, subclass 172.
- III. Claim 10, drawn to use of composite material, classified in class 52, subclass 79.7.

2. The inventions are distinct, each from the other because:

Inventions I and II are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case, a winding of the fiber bundles can make a composite article.

3. Inventions I and III are related as product and process of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product (MPEP § 806.05(h)). In the instant case, the composite material can be used as an arch support in a shoe.

4. Inventions II and III are related as method of making composite and use of the composite. The composite can be used within a different process of use such as an arch support.

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5. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

6. During a telephone conversation with J. Georg Seka on 2/21/02 a provisional election was made traverse to prosecute the invention of Group I, claims 1-5. Applicant in replying to this Office action must make affirmation of this election. Claims 6-10 withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

7. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Priority

8. The priority has not been perfected. The applicant is required to submit a ribboned copy of the priority document.

Drawings

9. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference characters "2" and "3" in Figure 1 have both been used to designate the impregnation bath. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

10. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference characters "2" and "3" have been used to designate both impregnation bath and fiber cords in Figures 1 and 2, respectively. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

11. The drawings are objected to because there is no preferred embodiment description for Figure 3 in the specification. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Specification

12. The claims in this application do not commence on a separate sheet in accordance with 37 CFR 1.52(b). Appropriate correction is required in response to this action.

Claim Rejections - 35 USC § 112

13. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

14. Claims 1-5 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The term "being possible" in claim 1 is a relative term which renders the claim indefinite. The term "being possible" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. Claim 1 does not distinctly point out that the fiber cords are bundle-like or band-like. Additionally, the term, "like" is also indefinite. The examiner suggests using the term bundle or band alone.

The term "can be" in claim 4 is a relative term, which renders the claim indefinite. The term "can be" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. Claim 4 does not distinctly require the addition of a pulverized inorganic material.

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The term "in particular" in claim 5 is a relative term, which renders the claim indefinite. The term "in particular" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. Claim 5 does not distinctly require the first array of fibers to consist of carbon.

15. Claim 3 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

A broad range or limitation together with a narrow range or limitation that falls within the broad range or limitation (in the same claim) is considered indefinite, since the resulting claim does not clearly set forth the metes and bounds of the patent protection desired. Note the explanation given by the Board of Patent Appeals and Interferences in *Ex parte Wu*, 10 USPQ2d 2031, 2033 (Bd. Pat. App. & Inter. 1989), as to where broad language is followed by "such as" and then narrow language. The Board stated that this can render a claim indefinite by raising a question or doubt as to whether the feature introduced by such language is (a) merely exemplary of the remainder of the claim, and therefore not required, or (b) a required feature of the claims. Note also, for example, the decisions of *Ex parte Steigewald*, 131 USPQ 74 (Bd. App. 1961); *Ex parte Hall*, 83 USPQ 38 (Bd. App. 1948); and *Ex parte Hasche*, 86 USPQ 481 (Bd. App. 1949). In the present instance, claim 3 recites the broad recitation "less than 20%", and the claim also recites "preferably less than 5%" which is the narrower statement of the range/limitation.

Claim Rejections - 35 USC § 102

16. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

17. Claims 1,2, 4 and 5 are rejected under 35 U.S.C. 102(b) as being anticipated by Murphy et al., U.S. Patent No. 4,407,885.

Murphy et al. disclose a composite article with a plurality of layers each including reinforcing fibers of materials selected from the group consisting of carbon and glass (see Claim 2). Murphy et al. also discloses that the plurality of layers is in a stacked assembly with the layers sequentially adjacent and in contrast with each other (see Claim 2). The reference also discloses that at least each alternating of the layers in the stacked assembly include a thermoplastic fibrous material intermixed with the reinforcing fibrous material wherein the thermoplastic fibrous material is selected from a group consisting of heat softenable polyamide, polyacrylic, polyester, polyolefins; any derivative of the above-mentioned groups and any mixtures thereof (see column 6, lines 62-68 through column 7, lines 1-47). Murphy et al also discloses that the plurality of layers being bonded together by the thermoplastic materials fused at junctures between the fibrous materials and a resin impregnating the plurality of layers (see Claim 2). Although Murphy does not refer to a pulverized duroplastic and/or inorganic pulverized material can be admixed to the thermoplastic, this language does not add a positive limitation to the claim. The claim does not positively state that the pulverized duroplastic or pulverized inorganic material is

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in the composite. Therefore, Claim 4 only recites that the plastic impregnation is thermoplastic, which is pointed to in Murphy.

18. Claims 1,2,4 and 5 are rejected under 35 U.S.C. 102(b) as being anticipated by Lee et al., U.S. Patent No. 5,401,564.

The reference discloses a composite article with a plurality of glass weft elements interlaced with a second plurality of graphite warp elements and a thermoplastic resin matrix (see Claims 1-2).

The reference also discloses that the composite is more flexible along the first axis parallel to the plurality of the glass weft elements than along the second axis parallel to the second plurality of the graphite warp elements. Although Lee does not refer to a pulverized duroplastic and/or inorganic pulverized material can be admixed to the thermoplastic, this language does not add a positive limitation on the claim. The claim does not positively state that the pulverized duroplastic and/or pulverized organic material are in the composite. Therefore, Claim 4 only recites that the plastic impregnation is thermoplastic, which is disclosed by Lee (see Claims 2-4).

Claim Rejections - 35 USC § 103

19. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

20. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Murphy et al., U.S. Patent No. 4,407,885 or Lee et al., U.S. Patent No. 5,401,564.

The features of these patents have been relied upon above. Neither reference teaches a composite material wherein the reinforcing fibers in the first layer have an impregnation in amounts greater than or equal to 35% thermoplastic and the fibers of the subsequent layer have an impregnation which is less than 20% thermoplastic resin. As stated in Murphy (column 10, lines 14-22), one of ordinary skill in the art can optimize and/or adjust rigidity as desired by controlling the various parameters including the variation of the amount of thermoplastic material. As such, it would have been obvious to one of ordinary skill in the art to employ a practice of ensuring that the impregnation of the reinforcing fibers in the first layer is greater than or equal to 35% and the impregnation of the reinforcing fibers of the subsequent layer are less than 5%, motivated by increased flexibility by the first layer. Further, in column 7 of Murphy, the reference teaches that the amounts of thermoplastic can be varied and one layer may have more thermoplastic than an adjacent layer. See specifically, column 7, lines 53-65. The Murphy reference does teach optimization of the amounts of thermoplastic in the layers depending on intended use. The Lee reference teaches that by controlling the application process

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of the thermoplastic resin, the properties of the composite can be altered providing the desired effect (see column 8, lines 48-66).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Camie S. Thompson whose telephone number is 703-305-4488.

The examiner can normally be reached on Monday through Friday from 7:30 am to 4:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cynthia H Kelly, can be reached on (703) 308-0449. The fax phone numbers for this Group are (703) 872-9310 {before finals} and (703) 872-9311 {after finals}.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is 703-308-0661.

Cst

3/5/02

CYNTHIA H. KELLY
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1700

A handwritten signature in black ink, appearing to read 'Cynthia H. Kelly', is written over the printed name and title.